UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,127	02/21/2002	Douglas G. Clark	T8-466286US	6792

7590 10/08/2003

Arne I. Fors
Gowling Lafleur Henderson LLP
Suite 4900
Commerce Court West
Toronto, ON M5L 1J3
CANADA

EXAMINER	
ZIMMERMAN, JOHN J	
ART UNIT	**PAPER NUMBER**
1775	

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/079,127	CLARK ET AL.	
	Examiner	Art Unit	
	John J. Zimmerman	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-10 is/are rejected.

7)☒ Claim(s) 11-13 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 21 February 2002 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 & 7 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

FIRST OFFICE ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The Information Disclosure Statement received August 30, 2002 (Paper No. 6) and the Supplemental Information Disclosure Statement received August 12, 2003 (Paper No. 7) have been considered. References BB and BC in Paper No. 7 have been crossed through because only abstracts and not copies of the actual foreign patent documents were received for consideration. Initialed forms PTO-1449 are enclosed with this Office Action.

Claim Objections

3. Claims 11-13 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend upon another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 11-13 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ebdon (U.S. Patent 3,189,989).

6. Ebdon discloses extruding a lead alloy strip so that the final grain size of the lead is in the range of 1 to 100 microns (e.g. see column 2, lines 11-47; Examples I-III). Although Ebdon may not disclose "rapidly cooling", there is no clear definition of what constitutes "rapidly" and therefore even exposing the extrusion to the atmosphere after extrusion appears to qualify at meeting this step. Applicant's claims do not distinguish over extrusions from lead powder.

7. Claims 1, 3-5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by McWhinnie (U.S. Patent 4,332,629).

8. McWhinnie discloses extruding lead alloy strips, cooling the strips with jets of water, winding the strips on a roll under low tension, and slitting and expanding the strips into a mesh (e.g. see column 3, line 41 - column 2, line 60)). Although McWhinnie does not specifically disclose the grain size of his specific examples, the extrusion and rapid cooling process of McWhinnie is so similar to that claimed that it would very likely produce grain sizes in applicant's claimed range. Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products

where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977). Although applicant discusses in the applicant's specification that the process of McWhinnie has limitations (e.g. see applicant's Description of the Related Art; e.g. at page 2, lines 15-21), applicant's claims do not distinguish over the extrusion process and the rapid cooling step of McWhinnie.

9. Claims 1, 3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Hofmann (Chem. Abs. "Creep Behavior or Lead and Lead Alloys in Practical Application", Freiberger Forschungshefte 1964).

10. Hofmann discloses extruding a lead alloy strip so that the grain size of the lead is in the range of 0.03 mm (e.g. see abstract submitted by applicant in the information disclosure statement, Paper No. 7). Although Hofmann may not disclose "rapidly cooling", there is no clear definition of what constitutes "rapidly" and therefore even exposing the extrusion to the atmosphere after extrusion appears to qualify at meeting this step. Applicant's claims do not distinguish over the extrusion process of Hofmann.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 2, 6-7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over McWhinnie (U.S. Patent 4,332,629) in view of applicant's disclosure of the prior art.

13. McWhinnie discloses extruding lead alloy strips, cooling the strips with jets of water, winding the strips on a roll under low tension, and slitting and expanding the strips into a mesh (e.g. see column 3, line 41 - column 2, line 60)). Although McWhinnie does not specifically disclose the grain size of his specific examples, the extrusion and rapid cooling process of McWhinnie is so similar to that claimed that it would very likely produce grain sizes in applicant's claimed range. Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977). Although applicant discusses in the applicant's

specification that the process of McWhinnie has limitations (e.g. see applicant's Description of the Related Art; e.g. at page 2, lines 15-21), applicant's claims do not distinguish over the extrusion process and the rapid cooling step of McWhinnie. McWhinnie may differ from the claims in that McWhinnie instructs that "the strips were slit and expanded to mesh form in conventional manner" (e.g. see column 4, lines 50-54) but does not elaborate on the details of the slitting and expansion means. The applicant, however, clearly shows that the slitting and expansion means in claims 6, 7, 9 and 10 are conventional slitting and expansion means in the art for making meshes (e.g. see page 3, lines 1-9, of the applicant's specification). Since McWhinnie discloses to use a conventional slitting and expansion means, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any of the conventional slitting and expansion means disclosed by applicant as prior art, because these processes would be the types of processes recognized in the art as suitable conventional means for making McWhinnie's expanded mesh. Regarding claim 2, it is well recognized that extrusion process can produce articles of various cross sections other than planar strips depending on the configuration of the extrusion die. There appears to be no patentable distinction in initially producing other cross sections configurations that are subsequently simply shaped into planar strips since the end product would be essentially the same.

14. Regarding the use of applicant's admitted prior art in the rejection, it is axiomatic that consideration of the prior art cited by the examiner must, of necessity, include consideration of the admitted state of the art found in applicant's specification, *In re Davis*, 305 F.2d 501, 134 USPQ 256 (CCPA 1962); *In re Hedges*, 783 F.2d 1038, 228 USPQ 685 (Fed. Cir. 1986).

Admitted knowledge in the prior art may be used in determining patentability of the claimed subject matter, *In re Nomiya*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This additional prior art serves to further establish the level of ordinary skill in the art at the time the invention was made. Of particular note, Jin (U.S. Patent 5,964,904) clearly shows that it is now understood in the art that lead sheets used for batteries should have an average grain size of "at least 50 μm, preferably at least 100 or 200 μm" (column 6, lines 14-20).

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (703) 308-2512. The examiner can normally be reached on 8:30am-5:00pm, M-F. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

John J. Zimmerman
Primary Examiner
Art Unit 1775

jjz
September 29, 2003